

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Original) A process for hydrogenating an olefin-containing feedstock containing a plurality of different unsaturated olefinic hydrocarbon compounds characterized as having from 60 to 100 mass% unsaturated olefinic hydrocarbon compounds, the process including:

subjecting the olefinic feedstock to bulk hydrogenation by means of catalytic distillation in a catalytic distillation zone containing a hydrogenation catalyst, and in the presence of hydrogen, thereby to hydrogenate from about 30 to about 100% of the unsaturated olefinic hydrocarbon compounds present in the feedstock into their corresponding saturated compounds; and

withdrawing the saturated compounds from the catalytic distillation zone[.];

recovering unhydrogenated olefinic hydrocarbon compounds comprising lightest olefinic hydrocarbon compounds in said feedstock from said hydrogenate; and

recovering unhydrogenated olefinic hydrocarbon compounds comprising heaviest olefinic hydrocarbon compounds in said feedstock from said hydrogenate.

2. (Cancelled)

3. (Original) The process according to claim 2 wherein said feedstock comprises from 80 to 100 mass % unsaturated olefinic hydrocarbon compounds.

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Original) The process according to claim 1 wherein said bulk hydrogenation is carried out a pressure up to 1500 kPa (g).

8. (Original) The process according to claim 7 wherein said bulk hydrogenation is carried out at pressure in the range of 50 to about 200 kPa (g).

9. (Currently Amended) The process according to claim 1, 2, 3, ~~4, 5, 6~~, 7 or 8 wherein said feedstock comprises C₇-C₁₃ naphtha.

10. (Currently Amended) The process according to claim 1, 2, 3, ~~4, 5, 6~~, 7 or 8 wherein said feedstock comprises oligomers obtained from the oligomerization of C₃-C₇ unsaturated olefinic hydrocarbons.

11. (Currently Amended) The process according to claim 1, 2, 3, ~~4, 5, 6~~, 7 or 8 wherein said feedstock comprises unsaturated hydrocarbon compounds derived from Fischer- Tropsch reaction.

12. (Currently Amended) The process according to claim ~~[[7]]~~9 wherein the feedstock comprises C₇- C₁₃ naphtha feedstock, said bulk hydrogenation is operating at pressure in the range of 100 kPa (g)-200 kPa (g) in a catalyst bed which is at a temperature in the range of about 120 °C-140 °C, with a product stream comprising saturated compounds being removed as a bottoms stream and an overheads stream comprising unreacted unsaturated olefinic hydrocarbon compounds being lighter compounds.

13. (Original) The process according to claim 7 wherein the feedstock comprises unsaturated olefinic oligomers derived from C₃-C₇ olefins, said bulk hydrogenation is operating at a pressure in the range of about 50 kPa (g)-200 kPa (g) in a catalyst bed which is at a temperature is in the range of about 160 °C-200 °C, with a product stream comprising saturated hydrocarbon compounds being removed as an overheads stream and a bottoms stream comprising unreacted unsaturated hydrocarbon compounds being heavier compounds.